

Appl. No. 10/267,272
Amdt. Dated November 9, 2006
Reply to Office Action of August 9, 2006

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REMARKS

Claims 6-14, 18-21, and 24-34 are pending in the present application.

This Amendment is in response to the Office Action mailed August 8, 2006. In the Office Action, the Examiner rejected claims 18-21 and 30-34 under 35 U.S.C. §103(a). In addition, the Examiner indicated allowable subject matter for claims 18-21 and 30-34. Applicants have amended claims 6-7, 14, 18-20, 24, and 29-34. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 18-21 and 30-34 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,922,111 issued to Kurd et al. ("Kurd"). Applicants respectfully traverse the rejection and submit that the Examiner has not met the burden of establishing a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004)*. Applicants respectfully submit that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Kurd discloses an adaptive frequency clock signal. A voltage droop detector 510 generates a shift control signal that is provided to a shift register 520 (Kurd, col. 4, lines 33-36). The shift register 520 shifts on both rising and falling edges of the clock signal (Kurd, col. 4, lines 42-43). Each bit in the shift control register 520 is provided to a bimodal delay element 530 (Kurd, col. 4, lines 52-53).

Kurd, taken alone or in any combination with official notice, does not disclose, suggest, or render obvious, at least one of (1) detecting a droop in a power supply voltage applied to an integrated circuit; (2) accessing rise and fall delay settings from a plurality of registers; and (3)

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adjusting rise and fall delays of a clock signal based on the rise and fall delay settings so that a total reduction of a period of the clock signal does not exceed a frequency guard band of the integrated circuit.

Kurd merely discloses the shift register shifting right or left based on the shift control signal (Kurd, col. 4, lines 41-48), not accessing the rise and fall settings from a plurality of registers. There is only a single shift register, not a plurality of registers storing rise and fall delay settings. Furthermore, Kurd merely discloses that reducing or decreasing the frequency of the output clock signal (Kurd, col. 5, lines 11-12; lines 18-25), not adjusting the rise and fall delays of a clock signal so that a total reduction of a period of the clock signal does not exceed a frequency guard band of the integrated circuit.

The Examiner contends that official notice is taken that both the concept and the advantages of using frequency guard band is old and well known in the art (Office Action, page 2, paragraph number 3). Applicants respectfully disagree and submit that such an official notice is inappropriate.

Official notice unsupported by documenting evidence should only be taken by the Examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well known. In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970); MPEP 2144.03A. It would not be appropriate for the Examiner to take official notice of facts without citing a prior art references. MPEP 2144.03A. Furthermore, if official notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying a decision to take such notice must be clear and unmistakable. MPEP 2144.03B.

Here, the Examiner has not shown that the concept and advantages of using frequency guard band is old and well known in the art. If such concept is old and well known in the art, the Examiner should be able to cite references or facts to support his contention. A mere statement is not sufficient. Furthermore, even if the concept and advantages of using frequency guard band is old and well known in the art, the Examiner has not provided a clear and unmistakable technical line of reasoning that a total reduction of a period of the clock signal does not exceed a frequency guard band.

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Moreover, there is no motivation to combine Kurd with official notice because neither of them addresses the problem of limiting the total reduction to be less than a frequency guard band. There is no teaching or suggestion that accessing the rise and fall settings from a plurality of registers is present. Kurd, read as a whole, does not suggest the desirability of adjusting the rise and fall delays of a clock signal so that a total reduction of a period of the clock signal does not exceed a frequency guard band. For the above reasons, the rejection under 35 U.S.C. §103(a) is improperly made.

The Examiner failed to establish a prima facie case of obviousness and failed to show there is teaching, suggestion, or motivation to combine the references. When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is

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directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

In the present invention, the cited references do not expressly or implicitly suggest any of the above elements. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Kurd and official notice is an obvious application of compensating supply voltage droop using a plurality of registers and frequency guard band.

Therefore, Applicants believe that independent claims 18, 30, and 34 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §103(a) be withdrawn.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication of allowable subject matter for claims 6-14 and 24-29. Applicants note that claim 8 was canceled from the previous response. Applicants have amended claims 6, 7, 14, 24, and 29 to mainly correct minor informalities regarding antecedent bases, typographical errors, and grammar. Claim 7 has been amended to provide further specificity to the claim language.

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Conclusion

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: November 9, 2006

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